PRICE $5.00

# POWER SUPPLY

VOLTAGE REGULATED
POWER SUPPLY

MODEL SM 36-10
and SM 36-10M

SERIAL NO. C 35 228

# INSTRUCTION MANUAL

kepco inc.®

131-38 SANFORD AVENUE • FLUSHING 52, N. Y.
Area Code 212 IN 1-7000 • TWX # NY 4-5196

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# STANDARD POLICY COVERING REPRODUCTION AND USE OF TECHNICAL DATA FOR KEPCO MANUFACTURED EQUIPMENT

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## SPECIFICATIONS AND CONTROLS FOR MODELS SM 36-10 AND SM 36-10M

## I. ELECTRICAL AND PHYSICAL SPECIFICATIONS:

.... DC OUTPUT VOLTAGE:
0-36 volts DC, continuously variable.

.... DC OUTPUT CURRENT:
0-10 amperes, continuous duty.

.... AC INPUT:
105-125 volts, 60 ± 1/2 cps, 6.5 amperes (max.)

.... REGULATION:
Line: 0.1% for 105-125 v line change at any output voltage within specified range.
Load: 0.1% or 0.003 v, whichever is greater, for 0 to 10 amperes load change, at any output voltage within specified range.
REMOTE ERROR SENSING feature provides means of maintaining specified regulation directly at load. (see P. C-2).

.... RIPPLE:
Less than 0.001 volts rms.

.... STABILITY:
Output voltage variation is less than 0.1% over a period of 8 hours, after unit has reached equilibrium. Approximately 3/4 of an hour is required for this unit to reach equilibrium from a "cold start".

.... OUTPUT IMPEDANCE:
Less than 0.005 ohm from DC to 1 KC.
Less than 0.05 ohm from 1 KC to 100 KC.

.... RECOVERY TIME:
50 microseconds.
Recovery time is defined as the time required for the output voltage to return to within 0.1 volts of the output voltage setting.

.... TEMPERATURE COEFFICIENT:
Output voltage changes less than 0.05% per unit C.

.... AMBIENT OPERATING TEMPERATURE:
-20 C to +50 C maximum. Protective circuit turns off unit whenever over-temperature condition occurs in pass elements. Interrupting input power resets unit.

.... STORAGE TEMPERATURE:
-40 C to +85 C.

.... DIMENSIONS:
5-1/4" high x 19" wide x 13-7/8" deep (behind panel).

.... COLOR:
Kepco Standard Gray Hammertone.

.... METERS: (APPLIES ONLY TO MODEL SM 36-10M)
Voltmeter: 0-50 volts, 2-1/2".
Ammeter: 0-10 amps, 2-1/2".

## II. TERMINALS AND CONTROLS:

....(On front panel):
.... DC OUTPUT AND GROUND binding posts, clearly marked. Output terminals isolated from chassis; either positive or negative terminal may be grounded.
.... VOLTAGE CONTROL, continuously variable, for setting output voltage.
.... POWER ON-OFF switch, energizes power and auxiliary transformers.

....(At rear of unit):
.... DC OUTPUT AND GROUND binding posts, clearly marked; either positive or negative terminal may be grounded.
.... REMOTE ERROR SENSING binding posts provide means of maintaining specified regulation directly at load. (Diagram and Procedure on P. C-2).

## III. PROTECTIVE FEATURES:

.... FUSE PROTECTION:
.... POWER input fuse (ac) on front panel.
.... DC output fuse (ac) on front panel.
.... REFERENCE fuse (ac) protects internal circuitry.

.... OVERLOAD PROTECTION:
Provided by inherent current limiting action of Kepco "FLUX-O-TRAN" transformer. Output may be shorted momentarily without damage to unit. Continuous overload or short will blow DC FUSE.

.... OVER-TEMPERATURE PROTECTION:
Thermostat relay control turns unit off if temperature of pass elements exceeds safe limit. Relay is reset by interrupting input power with ON-OFF switch on front panel, or by disconnecting line cord from power source.

SECTION B

BRIEF THEORY:

Two circuit schematic drawings titled "POWER UNIT" and "CONTROL UNIT" are included in the Reference Index of this instruction manual. These drawings contain designations corresponding to the capitalized terms in the following discussion.

Some basic functional relationships in this power supply are illustrated in block Diagram B-1 (Page B-2A).

The POWER UNIT includes:

DC SOURCES:

....MAIN SUPPLY - (consisting of a Kepco "Flux-O-Tran" transformer, full wave bridge rectifier, and capacitive filter) provides line regulated DC power for the output, via the PASS CIRCUITRY.

....AUXILIARY SUPPLIES: COLLECTOR SUPPLY (negative full wave rectified) for PASS CIRCUITRY driver stages not connected to MAIN SUPPLY; $I_{CO}$ SUPPLY (full wave rectified) compensates for spurious biasing effects of collector leakage current; RETURN SUPPLY (full wave rectified) acts as leakage current path for series pass transistors and as bleed path to provide minimum operating current for pass transistors; CONTROL UNIT SUPPLY (full wave rectified).

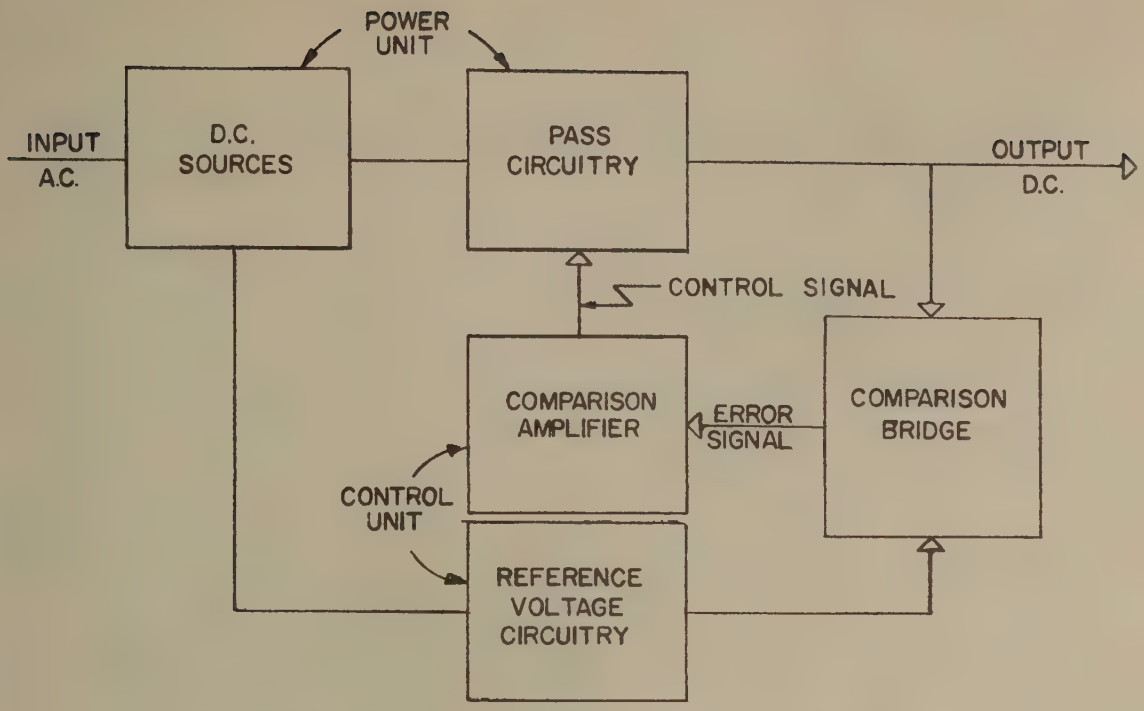
PASS CIRCUITRY:

The power transistors which function as pass elements (i.e. are in series with the load) may be regarded effectively as variable resistors (or conductors) controlled by a CONTROL SIGNAL. The current "passed" by these elements is a function of the emitter-base bias. The CONTROL SIGNAL is applied to the base terminal; hence a negative CONTROL SIGNAL will aid the forward conduction of a PNP transistor while a positive CONTROL SIGNAL will reduce the forward conduction. In response to the CONTROL SIGNAL the pass elements effect a current and voltage distribution in the main DC loop which holds the output voltage constant.

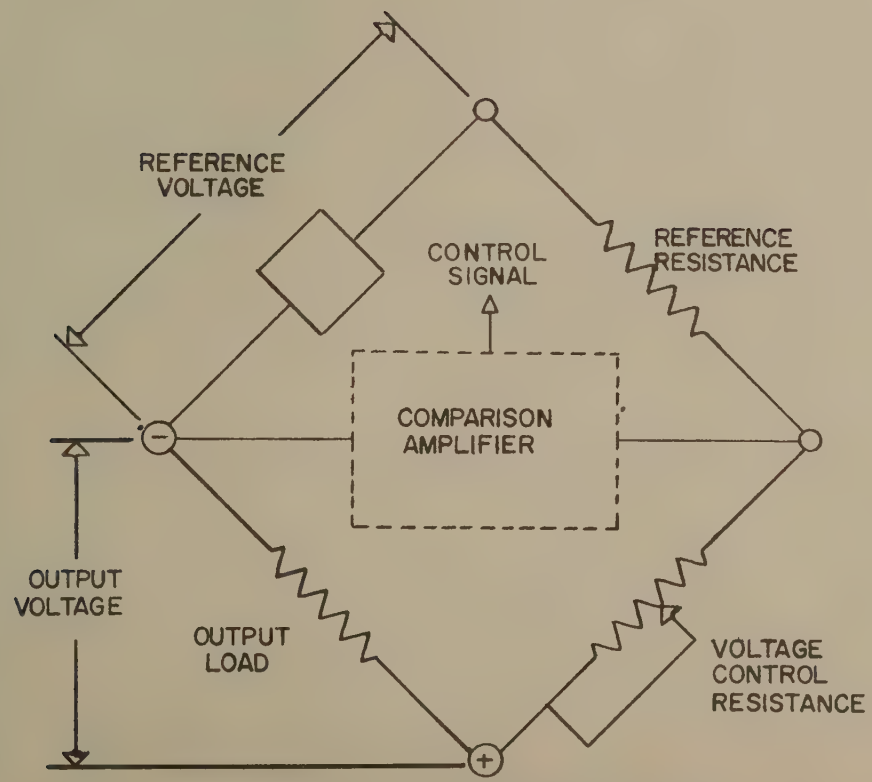
The CONTROL UNIT includes:

REFERENCE CIRCUITRY:

The function of the REFERENCE CIRCUITRY is to maintain a precise, stable, voltage standard for the COMPARISON AMPLIFIER.




(DIAGRAM B-1) *VOLTAGE REGULATED POWER SUPPLY*




(DIAGRAM B-2) *COMPARISON BRIDGE*

This power supply is shipped without any internal packing material; and may be put into operation immediately. It is designed for rack and for bench use. Carrying handles are provided on front panel.

....INTIAL "TURN - ON" PROCEDURE:

1. Adjust VOLTAGE CONTROL to approximate mid-range position.
2. With POWER ON-OFF switch set in "OFF" position, connect line cord to 115 v ac, 60 cps input power. If outlet is not polarized use 3 to 2 - prong adapter supplied with unit.
3. Set POWER ON-OFF switch to "ON" position.
4. Adjust VOLTAGE CONTROL to obtain desired output voltage.

....GENERAL OPERATION:

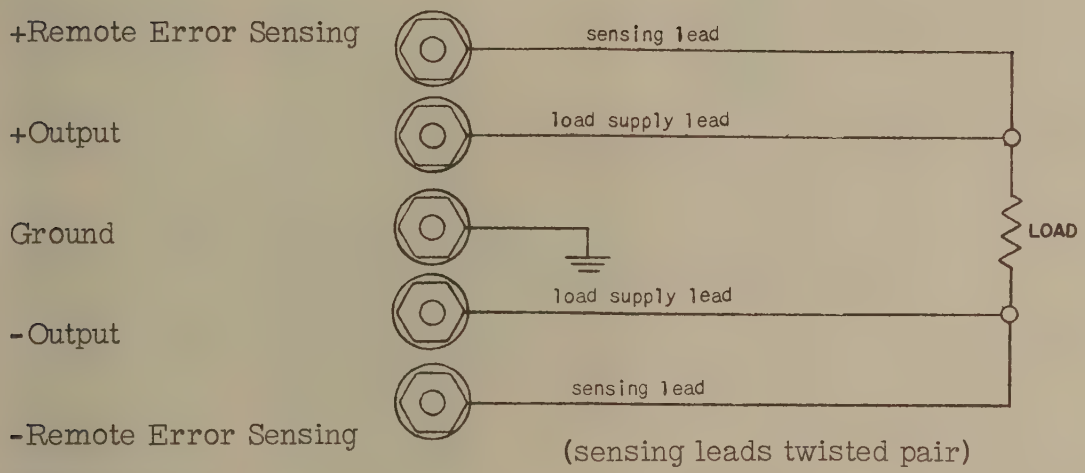
1. Once it has been determined that the unit is functioning satisfactorily, it is subsequently unnecessary to follow the INITIAL TURN-ON PROCEDURE.
2. The VOLTAGE CONTROL may be left fixed at any setting and the power turned "ON" and "OFF" without any harmful effects.

....MAINTENANCE AND REPAIR:

1. Under normal operating conditions, no mechanical maintenance of any kind should be required. Conservatively rated electrical components assure long trouble-free operating life.
2. Exceptional component accessibility, provided by resistor board construction and plug-in sub-assemblies, facilitates servicing, should it be required. It is emphatically recommended that trouble-shooting be handled by personnel highly familiar with transistor circuitry, - preferably with experience in closed-loop designs.
3. This unit should not be returned to the manufacturer without proper authorization and shipping instructions. In any correspondence with the factory regarding repair, the model, serial number, and symptoms of malfunction must be included.

## REMOTE ERROR SENSING OPERATION

(Terminal Connections)




(sensing leads twisted pair)

(Procedure)

1. With AC input power disconnected, remove jumpers between plus and minus Output terminals and Remote Error Sensing terminals on the rear of the unit.

2. Using twisted pair wire, connect sensing leads from positive and negative Remote Error Sensing terminals to the load (observing polarities).

3. Using twisted pair wire, connect load supply leads from positive and negative Output terminals.

IMPORTANT NOTE: This unit should not be operated with Remote Error Sensing if the voltage drop across the load supply leads exceeds 0.5 volt (maximum) per lead at maximum rated output current.

# kepco inc. ® REPLACEMENT PARTS LIST

POWER SUPPLY MODEL #SM36-10,-10M,-10MX Code 11-2261 

| SCHEMATIC NO. | QTY. | DESCRIPTION | MFRS. NAME & PART NO. (See Note) | KEPCO PART NO. |
|---|---|---|---|---|
| B201 | 1 | Fan Venturi | Rotron | 149-0013 |
| C201 | 1 | Capacitor,Electrol. Can 4 K μf 57.5 V | Sangamo DCM | 117-0264 |
| C202 | 1 | Capacitor,Electrol. Can 15 K μf 57.5 V | Sangamo DCM | 117-0266 |
| C203 | 1 | Capacitor,Paper, Can 5 μf 660 VAC | General Elec. 49F837 | 117-0293 |
| C204 | 1 | Capacitor,Mylar 1 μf 200 V | Hopkins Eng. 1P2MK | 117-0207 |
| C301 | 1 | Capacitor,Ceramic 0.05 μf 200 V | Good-All 6635 | 117-0315 |
| C302 | 1 | Capacitor,Electrol. Pigtail 10 μf 150 V | Industrial Cond. 10B912RM | 117-0147 |
| C401 | 1 | Capacitor,Electrol, Pigtail 350 μf 50 V | Industrial Cond. 1B844 | 117-0114 |
| C402 | 1 | Capacitor,Electrol.Pigtail 100 μf 200 V | Industrial Cond. 20B317RM | 117-0222 |
| C403 | 1 | Capacitor,Electrol.Pigtail 500 μf 50 V | Industrial Cond. 1B1163RM | 117-0221 |
| C404 | 1 | (Same as C403) | | |
| C405 | 1 | Capacitor,Ceramic 0.05 μf 500 V | Sprague 36C142A1 | 117-0163 |
| C406 | 1 | (Same as C405) | | |
| C502 | 1 | Capacitor,Electrol.Pigtail 100 μf 50 V | Industrial Cond. 05RMICO | 117-0122 |
| C503 | 1 | Capacitor,Mylar 0.5 μf 600 V | Hopkins Eng. P56M | 117-0208 |
| CB101 | 1 | Circuit Breaker 15 A 250 VAC | Wood Elec. CB2315 | 127-0124 |
| CR201 | 1 | Rectifier,Silicon Stack | Kepco Magnetics | 124-0111 |
| CR301 | 1 | Rectifier,Silicon Pigtail | Automatic PT-5 | 124-0028 |
| CR401,402 | 2 | Rectifier,Silicon Pigtail | Columbus CEC 105 | 124-0133 |
| CR403,404 | 2 | Rectifier,Silicon,Pigtail | Automatic PT-5 | 124-0028 |

REPLACEMENT PARTS MAY BE ORDERED FROM KEPCO, INC. ORDERS SHOULD INCLUDE KEPCO PART NUMBER AND DESCRIPTION.

PLEASE NOTE: THE MANUFACTURER'S NAME AND PART NUMBER LISTED FOR EACH ITEM ON REPLACEMENT PARTS LISTS, REPRESENTS AT LEAST ONE SOURCE FOR THAT ITEM AND IS LISTED SOLELY FOR THE CONVENIENCE OF KEPCO EQUIPMENT OWNERS IN OBTAINING REPLACEMENT PARTS LOCALLY. WE RESERVE THE RIGHT TO USE EQUIVALENT ITEMS FROM ALTERNATE SOURCES. KEPCO, INC.

| SCHEMATIC NO. | QTY. | DESCRIPTION | MFRS. NAME & PART NO. (See Note) | KEPCO PART NO. |
|---|---|---|---|---|
| CR405-408 | 4 | (Same as CR401,402) | | |
| CR501 | 1 | Rectifier,Pigtail | General Elec. 1N91 | 122-0007 |
| F101 | 1 | Fuse,Instantaneous 2A 250 V | Bussman ABC10 | 141-0014 |
| *M101 | 1 | Meter 50 VDC 2½" | General Elec. 8DW91V201AR2 | 135-0138 |
| *M102 | 1 | Meter 10 ADC 2½" | General Elec. 8DW91A229BW2 | 135-0168 |
| PL101 | 1 | Pilot Light Ass'y (Clear) | General Elec. | 152-0048 |
| Q301 | 1 | Transistor, PNP | Tung-Sol 2N382 | 119-0022 |
| Q302 | 1 | Transistor, PNP | Delco 2N1172 | 119-0034 |
| R201 | 1 | Resistor,Fixed Power Strip 1 K ohm 20 W | Ward Leonard 20S1000 | 115-0611 |
| R202 | 1 | (Same as R201) | | |
| R203-205 | 3 | Resistor,Fixed Power Ribbon 1.15 ohm 40 W | Hardwick Hindle 2BR-35-0.15 ohm | 115-1015 |
| R206 | 1 | Resistor,Fixed Power Strip 15 ohm 20 W | Ward Leonard 20S15 | 115-0964 |
| R207 | 1 | Resistor,Fixed Power Strip 1.5 ohm 20 W | Ward Leonard 20S1.5 | 115-0914 |
| R208 | 1 | Resistor,Fixed Power Strip 1 K ohm 30 W | Ward Leonard 30S1000 | 115-0975 |
| R209 | 1 | Resistor,Variable Wire Wd. 5 K ohm 2.5 W | General Radio 973-M | 115-0896 |
| R301 | 1 | Resistor,Fixed, Molded 100 K ohm ½ W | Allen Bradley EB1041 | 115-0809 |
| R302 | 1 | Capacitor,Electrol.Pigtail 10 µf 150 V | Industrial Cond. 10B912RM | 117-0147 |
| R303 | 1 | Resistor,Fixed Molded 68 ohm 2 W | Allen Bradley HB6805 | 115-0449 |
| R304 | 1 | Resistor,Fixed Molded 56 K ohm ½ W | Allen Bradley EB5625 | 115-0559 |
| R305 | 1 | Resistor,Fixed Molded 1 K ohm 1 W | Allen Bradley GB1025 | 115-0960 |

*Metered Model Only

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| SCHEMATIC NO. | QTY. | DESCRIPTION | MFRS. NAME & PART NO. (See Note) | KEPCO PART NO. |
|---|---|---|---|---|
| R306 | 1 | Resistor,Fixed Power Axial 200 ohm 3 W | Ward Leonard 3X200 | 115-0803 |
| R307 | 1 | Resistor,Fixed Molded 100 ohm ½ W | Allen Bradley EB1015 | 115-0341 |
| R308 | 1 | Resistor,Fixed Molded 330 K ohm ½ W | Allen Bradley EB3345 | 115-0250 |
| R309 | 1 | Resistor,Fixed Power Axial 1 K ohm 5 W | Ward Leonard 5X1000 | 115-0512 |
| R310 | 1 | Resistor,Fixed, Molded 47 ohm ½ W | Allen Bradley EB4701 | 115-0718 |
| R320 | 1 | Resistor,Fixed Axial 2.5 K 3 W | Ward Leonard 3X2500 | 115-0469 |
| R501 | 1 | Resistor,Fixed Axial 50 ohm 3 W | Ward Leonard 3X50 | 115-0641 |
| R502 | 1 | (Same as R501) | | |
| R503 | 1 | Resistor,Fixed Molded 10 ohm ½ W | Allen Bradley EB1001 | 115-0502 |
| R504 | 1 | Resistor,Fixed Molded 120 K ½ W | Allen Bradley EB1245 | 115-0256 |
| R505 | 1 | Resistor,Fixed Molded 3.3 K ½ W | Allen Bradley EB3325 | 115-0452 |
| RL201 | 1 | Relay 3PDT | Kurman 26D1015 | 140-0040 |
| S101 | 1 | Switch,Toggle SPST | Carling AA252,71-2 | 127-0107 |
| T201 | 1 | Transformer,Variable | Superior 21-40 | 175-0417 |
| T202 | 1 | Transformer,Flux-O-Tram | Kepco Magnetics 100-1208A | 100-1208A |
| T401 | 1 | Transformer | Kepco Magnetics 100-1179B | 100-1179B |
| TRANSISTOR ASSEMBLIES | | | | |
| A901,902, 903 | 3 | Pass Transistor Assembly | Kepco Inc | 110-0124 |
| | Includes the following: | | | |
| | 1 | Resistor,Fixed Power Axial 0.2 ohm 3 W | Ward Leonard 7/16"-Q-0.2ohm | 115-0450 |
| | 1 | Transistor, PNP | Motorola SP67 | 119-0035 |

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| SCHEMATIC NO. | QTY. | DESCRIPTION | MFRS. NAME & PART NO. (See Note) | KEPCO PART NO. |
|---|---|---|---|---|
| A904 | 1 | Pass Transistor Assembly | Kepco Inc | 110-0125 |
| | | Includes the following: | | |
| | 1 | Resistor,Fixed,Power Axial 0.2 ohm 3 W | Ward Leonard 7/16"-Q-0.2ohm | 115-0450 |
| | 1 | Switch, Thermostat N.C. | Chatham DRSCORP73C | 127-0093 |
| | 1 | Transistor, PNP | Motorola SP67 | 119-0035 |
| A905 | 1 | Driver Transistor Assembly | Kepco Inc | 110-0114 |
| | | Includes the following: | | |
| | 1 | Transistor, PNP | Delco 2N441 | 119-0016 |

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# REPLACEMENT PARTS LIST

CONTROL UNIT MODEL TRAM-32 Code 9-1262 

| SCHEMATIC NO. | QTY. | DESCRIPTION | MFRS. NAME & PART NO. (See Note) | KEPCO PART NO. |
|---|---|---|---|---|
| C1 | 1 | Capacitor,Mylar<br>0.22 µf, 200 V | Good-All<br>620S2242W | 117-0107 |
| C2 | 1 | Capacitor,Ceramic<br>0.1 µf, 500 V | Sprague<br>41C92 | 117-0087 |
| C3 | 1 | Capacitor, Electrl. Pigtail<br>25 µf, 25 V | Industrial Cond.<br>1B1063 | 117-0105 |
| C4 | 1 | Capacitor,Mylar<br>0.4 µf, 200 V | Hopkins Eng.<br>P42MK | 117-0128 |
| CR1,2 | 2 | Rectifier,Silicon Pigtail | Columbus<br>CEC105 | 124-0133 |
| Q1,3,4,5 | 4 | Transistor, NPN | General Transistor | 119-0024 |
| Q2 | 1 | Transistor, PNP | Tung-Sol | 119-0022 |
| Q6 | 1 | Transistor, PNP | Delco<br>2N1172 | 119-0034 |
| R1 | 1 | Resistor,Fixed Molded<br>100 ohm, 1 W | Allen Bradley<br>GB1011 | 115-0002 |
| R2 | 1 | Resistor,Fixed Molded<br>10 ohm, ½W | Allen Bradley<br>EB1001 | 115-0502 |
| R3 | 1 | Resistor,Fixed Molded<br>4.7 K ohm, ½W | Allen Bradley<br>EB4721 | 115-0467 |
| R4 | 1 | Resistor,Fixed Molded<br>240 ohm, ½ W | Allen Bradley<br>EB2415 | 115-0084 |
| R5 | 1 | Resistor,Fixed Molded<br>620 ohm, ½W | Allen Bradley<br>EB6215 | 115-0565 |
| R6 | 1 | Resistor,Fixed Molded<br>82 ohm, ½ W | Allen Bradley<br>EB8201 | 115-0941 |
| R7 | 1 | Resistor,Fixed Molded<br>2.7 K ohm, ½W | Allen Bradley<br>EB2721 | 115-0560 |
| R8 | 1 | Resistor,Fixed Molded<br>3.9 K ohm ½ W | Allen Bradley<br>EB3925 | 115-0808 |
| R9,10 | 2 | Resistor,Fixed Power,Axial<br>500 ohm, 3 W | Ward Leonard<br>3X500 | 115-0459 |
| R11,15 | 2 | Resistor,Fixed Molded<br>560 ohm, ½ W | Allen Bradley<br>EB5615 | 115-0888 |
| R12 | 1 | Resistor,Fixed Molded<br>13 K ohm ½ W | Allen Bradley<br>EB1335 | 115-0920 |
| R13 | 1 | Resistor, Fixed Molded<br>1.8 K ohm, ½ W | Allen Bradley<br>EB1821 | 115-0473 |

REPLACEMENT PARTS MAY BE ORDERED FROM KEPCO, INC. ORDERS SHOULD INCLUDE KEPCO PART NUMBER AND DESCRIPTION.

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| SCHEMATIC NO. | QTY. | DESCRIPTION | MFRS. NAME & PART NO. (See Note) | KEPCO PART NO. |
|---|---|---|---|---|
| R14 | 1 | Resistor,Fixed Molded 750 ohm, ½ W | Allen Bradley EB7515 | 115-0566 |
| R16 | 1 | Resistor,Fixed Molded 2.2 K ohm, ½ W | Allen Bradley EB2221 | 115-0466 |
| R17 | 1 | Resistor,Fixed Molded 47 ohm, 1 W | Allen Bradley GB4701 | 115-0005 |
| R18 | 1 | Resistor,Fixed Molded 10 ohm, 1 W | Allen Bradley GB1001 | 115-0052 |
| R19 | 1 | Resistor,Variable Multiturn 1 K ohm, ¼W | Bourns 271-1-102 | 115-0739 |
| R20 | 1 | Resistor,Fixed Molded 56 K ohm, ½ W | Allen Bradley EB5631 | 115-0255 |
| RD1 | 1 | Reference Diode | Hoffman RS-6 | 121-0028 |

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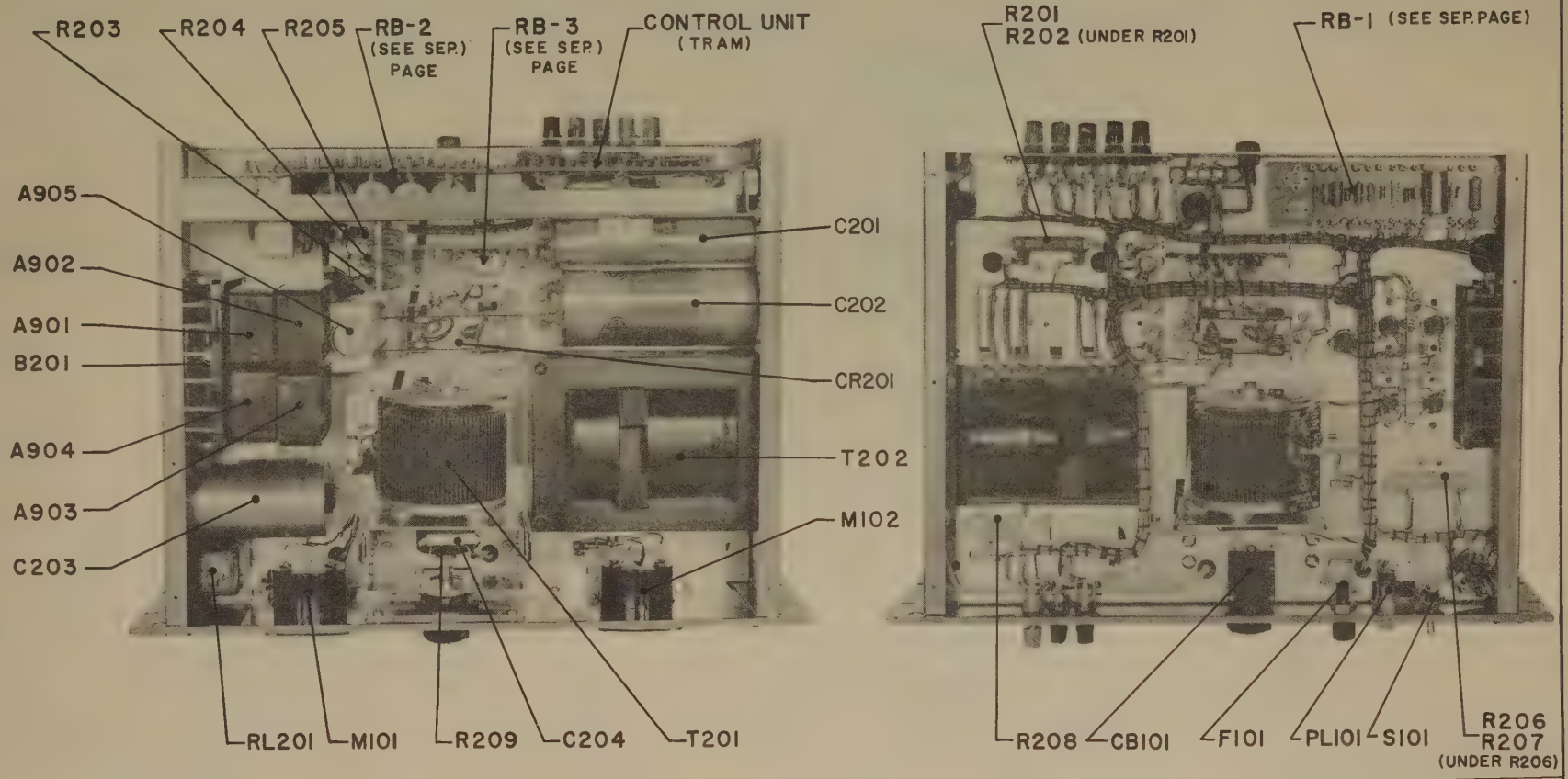
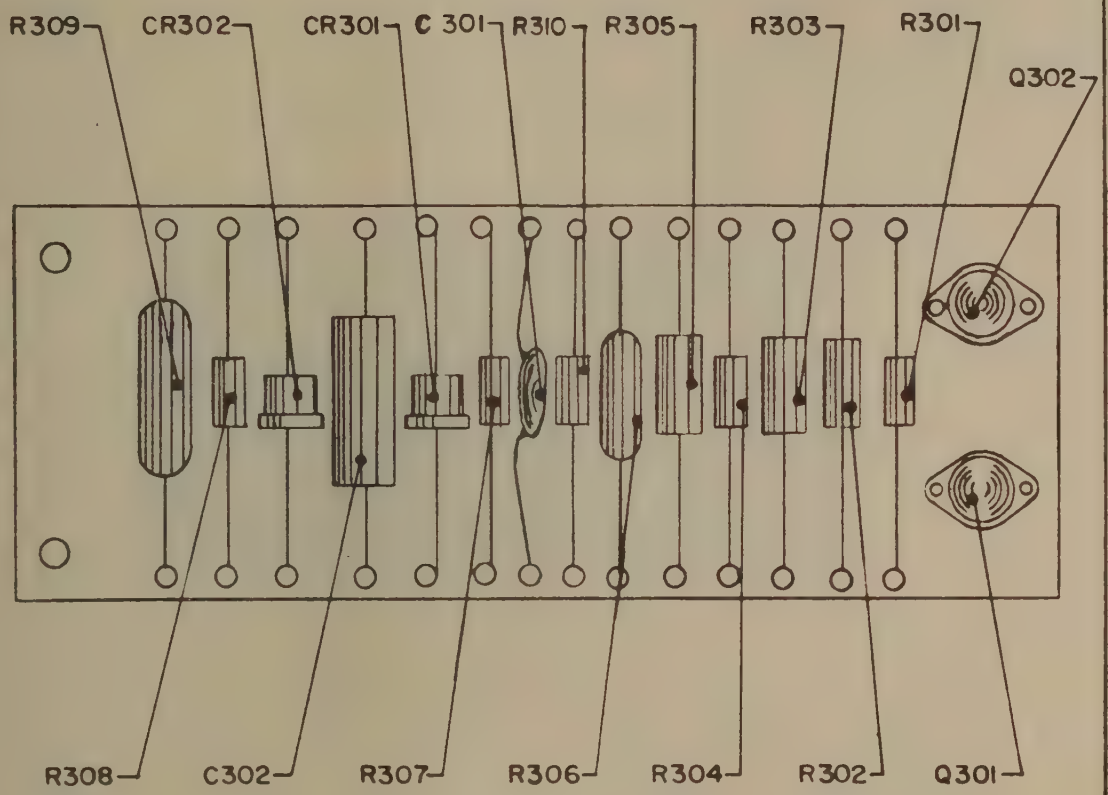
# FIELD REPLACEMENT LIST

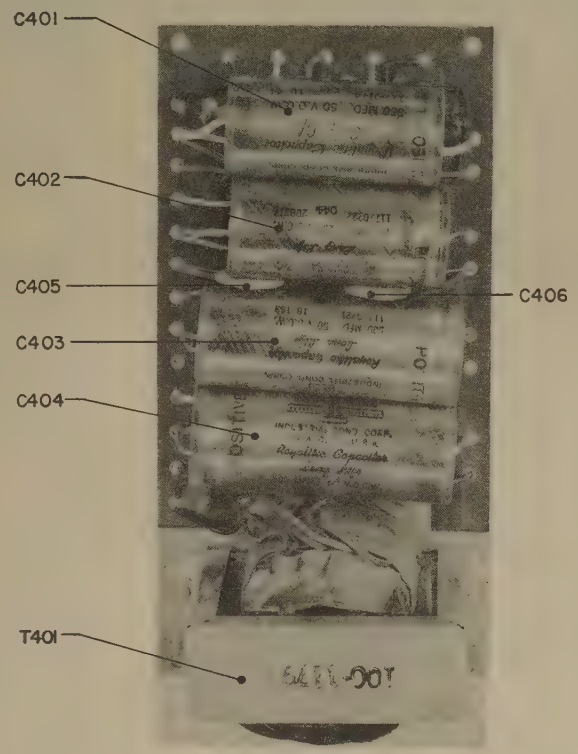
| Kepco Part No. | Description | Recommended Replacement MFR. | Mfr. No. |
|---|---|---|---|
| 119-0003<br>119-0016 | Transistor PNP | Delco | 2N174 |
| 119-0022 | Transistor PNP | Tung-Sol | 2N382<br>2N1707 |
| 119-0034 | Transistor PNP | Delco | 2N1172 |
| 119-0035,<br>0036,0037 | Transistor PNP | Motorola<br>Clevite | 2N1167<br>CTP 3553 |
| 119-0048 | Transistor Unijunction | General Elec. | 2N1671A |
| 119-0020 | Transistor PNP | RCA | 2N398A |
| 119-0038 | Silicon NPN | Transitron | ST29 |
| 119-0004 | Transistor PNP | Delco | 2N277 |
| 119-0024 | Transistor NPN | Gen. Instrument<br>RCA<br>Sylvania | 2N1605<br>2N388<br>2N1308 |

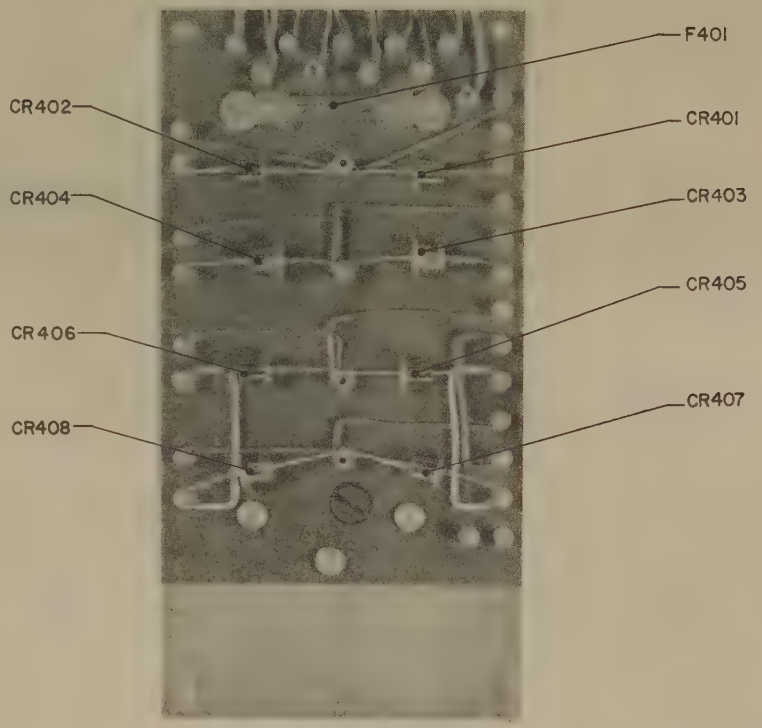



| KEPCO INC. FLUSHING NEW YORK | |
|---|---|
| ITEM POWER SUPPLY | DES. 12-28-61 |
| | APPD |
| | DFTM C. D. |
| MODEL SM36-10 | CHKD |
| DWG. No CM01266 | |




| KEPCO INC. | |
|---|---|
| FLUSHING NEW YORK | |
| ITEM RB-1 | DES 6-28-61 |
| | APPD J.P.K |
| MODEL SM-36-10 | DFTM RC |
| DWG. No. AM01262 | CHKD |

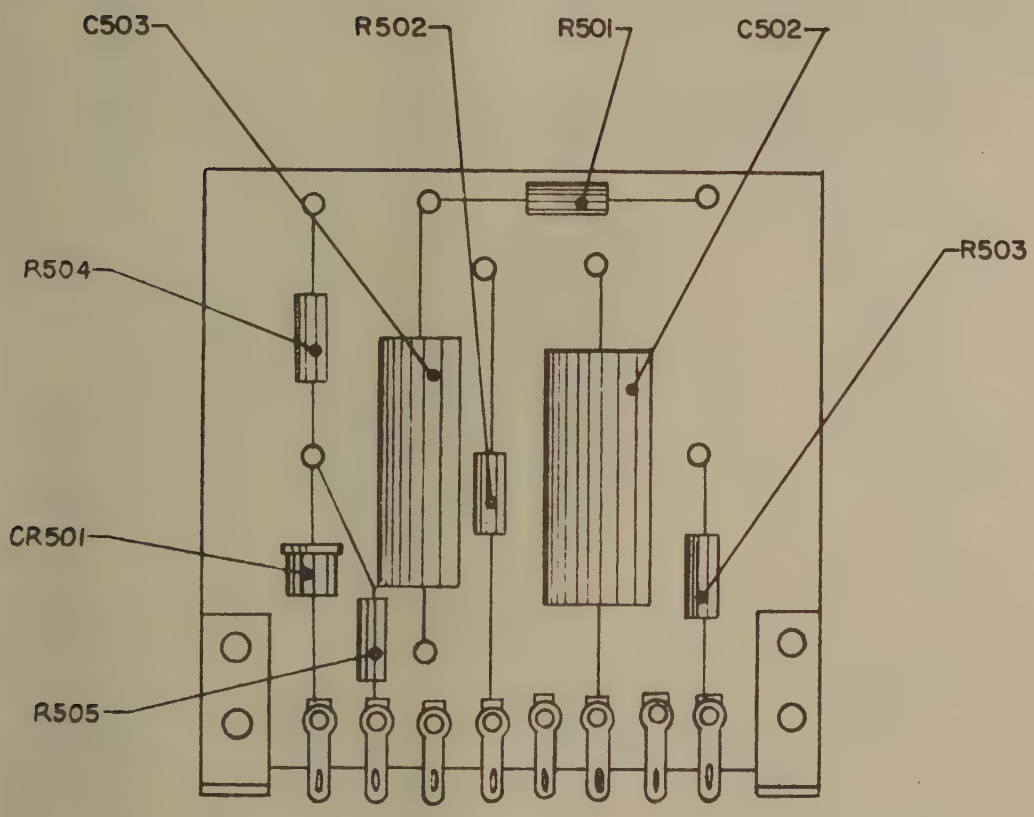



CORRECTIONS, IF ANY, APPEAR ON SHEET ATTACHED TO REAR COVER

| KEPCO INC. | |
|---|---|
| FLUSHING NEW YORK | |
| ITEM RB-2 | DES. 1-3-61 |
| | APPD |
| MODEL SM—— SERIES | DFTM M.CEA |
| DWG. No. BM00923 | CHKD |

A

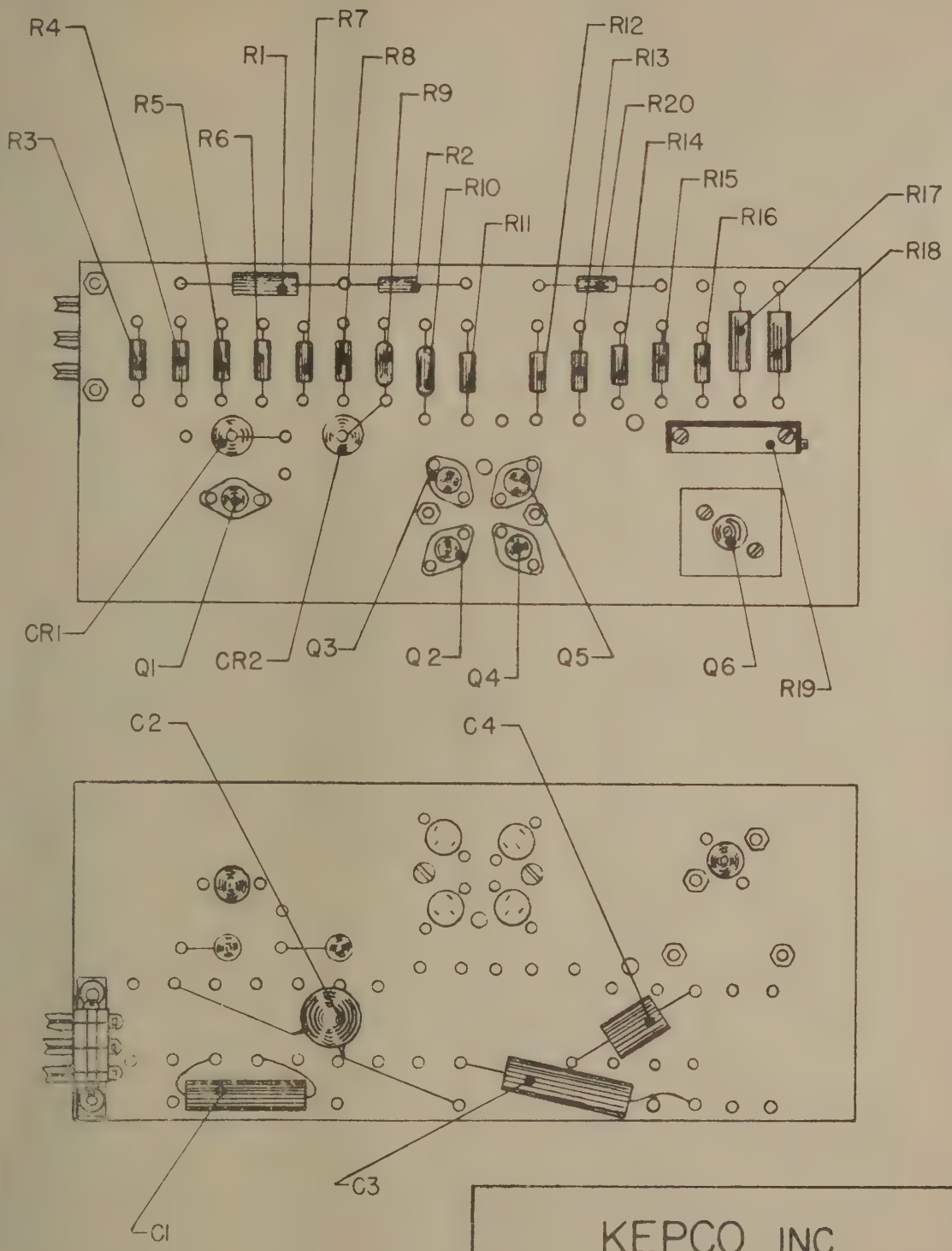



TOLERANCE UNLESS OTHERWISE SPECIFIED: FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± 1/2°

| DRAWN | CHECKED | APPROVED | DATE |
|---|---|---|---|
| R.C. | T.R.J. | J.P.K. | 3-12-62 |
| MODEL NO. SM-36-10 | | PART NO. | SCALE |
| TITLE RB-3 | | | |

KEPCO INC.
FLUSHING, N.Y.

DWG. NO. AM01263



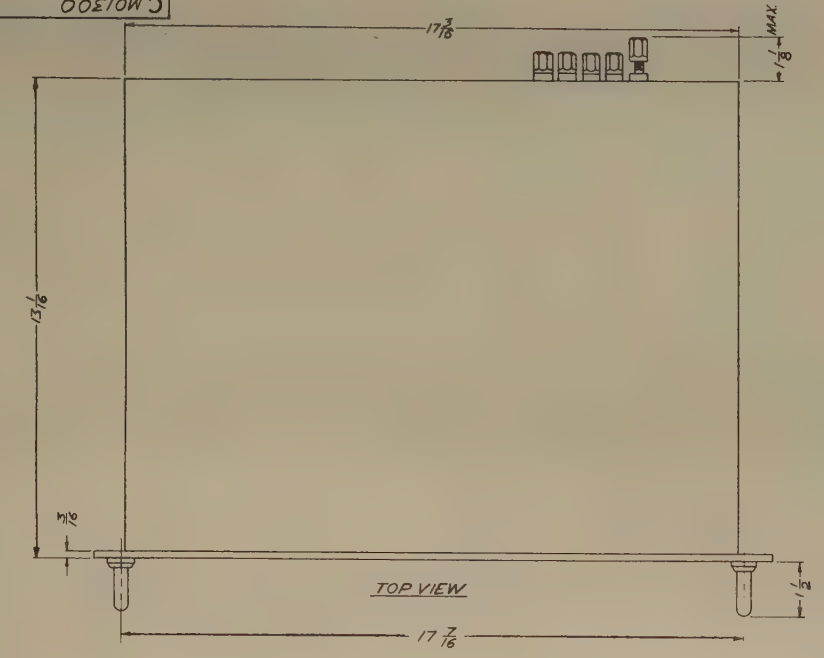

KEPCO INC.

FLUSHING NEW YORK

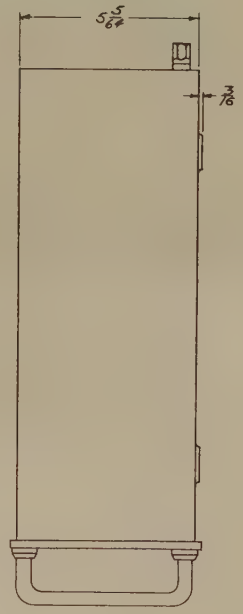
| | |
|---|---|
| ITEM: CONTROL UNIT | DES 3-1-61 |
| | APPD |
| MODEL TRAM-32 | DFTM R.C. |
| DWG No. AM01073 | CHKD |

C M01300

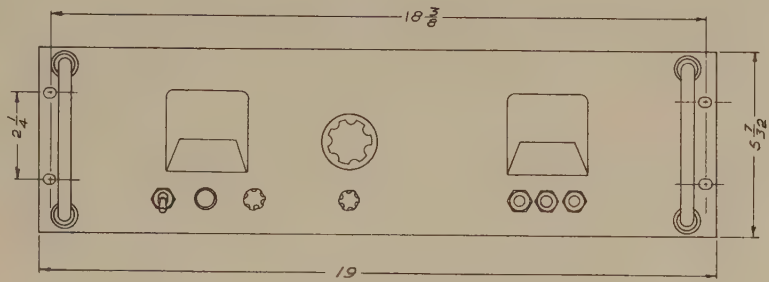
| REVISIONS | DRAWN | CHKD. | APPD. | DATE |
|---|---|---|---|---|
| | | | | |




TOP VIEW




SIDE VIEW




FRONT VIEW

NOTE:
MODELS USED ON
SM-14-15
SM-36-10
SM-75-5
SM-160-2
SM-325-1

KEPCO INC.
FLUSHING, N.Y.

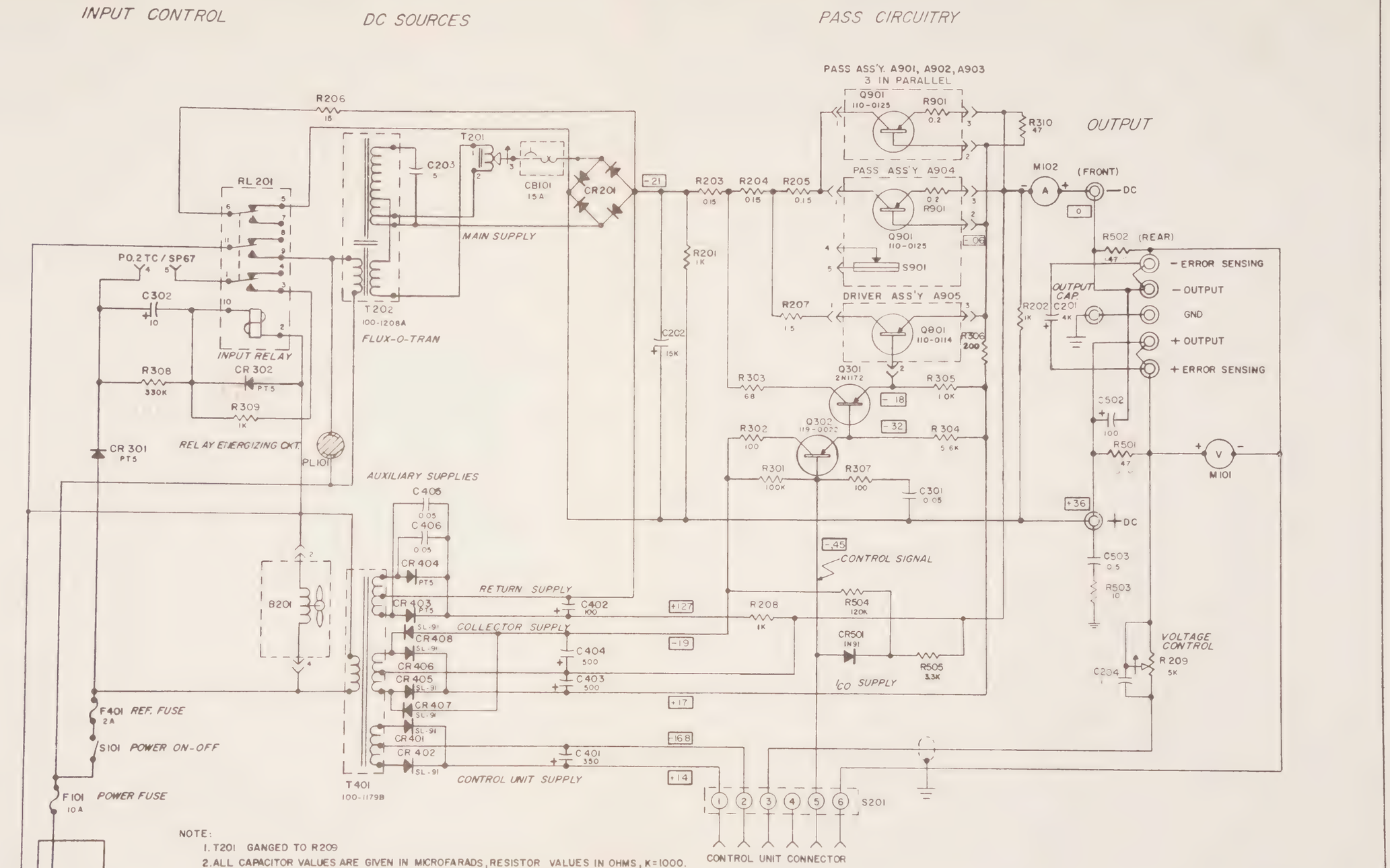
TITLE: OUTLINE DRAWING

| DRAWN | CHECKED | APPROVED | DATE |
|---|---|---|---|
| RA | T.D. | JB | 5-1-61 |

| MODEL NO. | PART NO. | SCALE |
|---|---|---|
| 5¼ S.M. SERIES | | —H— |

DWG. NO. C M01300

TOLERANCE UNLESS OTHERWISE SPECIFIED: FRACTIONS ± 1/64 DECIMALS ± .005 ANGLES ± 1/2°



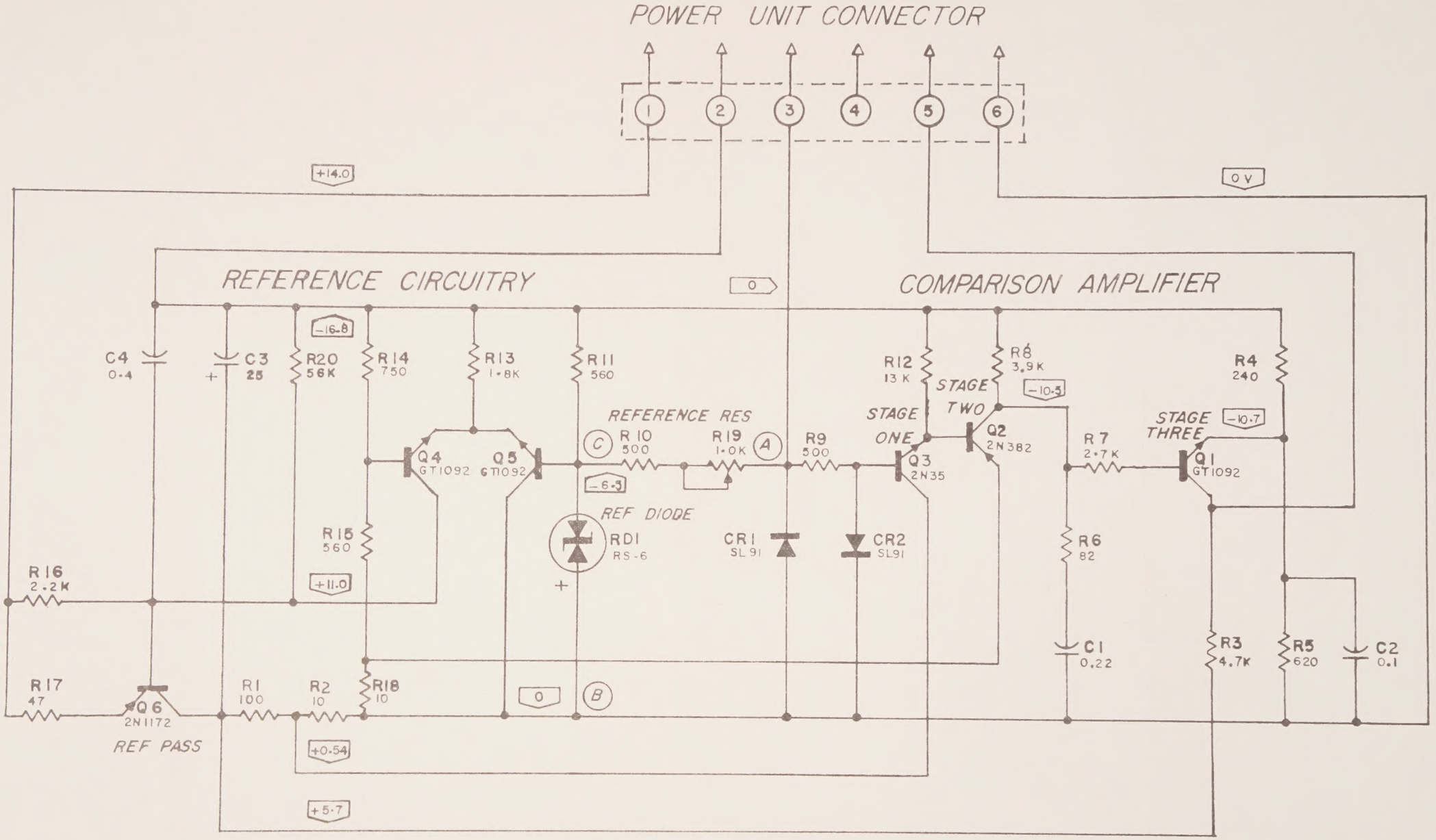

NOTE:

1. T201 GANGED TO R209
2. ALL CAPACITOR VALUES ARE GIVEN IN MICROFARADS, RESISTOR VALUES IN OHMS, K=1000.
3. ALL VOLTAGE READINGS TAKEN WITH 20,000 Ω/VOLT METER, WITH REFERENCE TO MINUS OUTPUT TERMINALS, UNDER THE FOLLOWING CONDITIONS:
   A. LINE = 115 V.A.C.
   B. D.C. OUTPUT = 36 VOLTS.
   C. OUTPUT CURRENT = ZERO.
4. VOLTAGES ARE TYPICAL AND ARE SUBJECT TO NORMAL COMPONENT TOLERANCE.
5. METERS M101, M102 APPLY ONLY TO SM-36-10M AND SM-36-10MX MODELS.
6. ORDER REPLACEMENT PARTS BY KEPCO PART NUMBER PROVIDED IN PARTS LIST SECTION

CONTROL UNIT CONNECTOR SOCKET (WIRING SIDE)

KEPCO LABORATORIES
FLUSHING NEW YORK

| | |
|---|---|
| ITEM: POWER UNIT | DES. J.R.G. |
| | APPD Alan Kosower |
| MODEL SM-36-10 | DFTM M.R. 3 8 62 |
| DWG. No. C-M00585 | CHKD J P K |




NOTES:

1- ALL VOLTAGES TAKEN UNDER CONDITIONS SPECIFIED ON MAIN SCHEMATIC

2- ALL CAPACITOR VALUES ARE GIVEN IN MICROFARADS, RESISTOR VALUES IN OHMS, UNLESS OTHERWISE NOTED (K= 1,000 OHMS)

3- ORDER REPLACEMENT PARTS BY KEPCO PART NUMBER PROVIDED IN PARTS LIST SECTION.

KEPCO INC.
FLUSHING, N.Y.

| | | | |
|---|---|---|---|
| TITLE: CONTROL UNIT | | | |
| DRAWN: C.A. | CHECKED: [illegible] | APPROVED: [illegible] | DATE: 12-2-60 |
| MODEL NO.: TRAM 32 | | PART NO.: | SCALE: |
| DWG NO: BM00790 | | | |

131-38 SANFORD AVENUE • FLUSHING 52, N. Y. • Area Code 212 IN 1-7000 • TWX # NY 4-5196

146-0045 - 1/62 -12M